

We claim:

1. A still image capturing device, comprising:

a focusable lens apparatus capable of being focused over a range of focus depths;

an image sensor comprising a plurality of pixel elements;

an electronically actuatable shutter device comprising a plurality of individually addressable and actuatable shutter elements, with a shutter element of said plurality of individually addressable shutter elements substantially corresponding to one or more pixel elements of said plurality of pixel elements; and

a processor communicating with said lens apparatus, said image sensor, and said shutter device, said processor controlling a focus depth of said lens apparatus and selectively actuating particular shutter elements of said shutter device associated with each of a plurality of focus depths during image capture.

2. The apparatus of claim 1, further comprising:

a memory including one or more image storage cells capable of storing one or more images or one or more image portions, one or more objects storage cells capable of storing definitions of one or more objects to be included in an image capture, one or more image map storage cells capable of storing one or more image maps that relate an object or focus depth to a particular grouping of shutter elements, and one or more range storage cells capable of storing one or more focus depth range measurements;

wherein said processor is capable of controlling said plurality of shutter elements according to an image map or one or more objects stored in said memory.

3. The apparatus of claim 1, further comprising a focus rangefinder capable of measuring one or more focus depths in an image to be captured.

4. The apparatus of claim 1, further comprising at least one user input device, wherein said at least one user input device is capable of being manipulated by a user in order to set focus regions in an image to be captured.

5. The apparatus of claim 1, wherein said image sensor comprises a two-dimensional array of pixel elements and said shutter device comprises a two-dimensional array of shutter elements.

6. The apparatus of claim 1, wherein said image sensor is a photographic film.

7. An image capturing method for a still image capturing device, comprising the steps of:

initiating an image capture in an image sensor of said image capturing device, with said image sensor comprising a plurality of pixel elements;

obtaining a first focus depth;

moving a lens apparatus of said image capturing device to said first focus depth;

capturing a first image portion corresponding to a first subset of said plurality of pixel elements at said first focus depth;

obtaining a second focus depth;

moving said lens apparatus to said second focus depth; and

capturing a second image portion corresponding to a second subset of said plurality of pixel elements at said second focus depth.

8. The method of claim 7, wherein the obtaining steps further comprise receiving said first and second focus depths from a focus rangefinder sensor.

9. The method of claim 7, wherein the obtaining steps generate a two-dimensional array of focus depth measurements.

10. The method of claim 7, wherein the method further comprises:

opening all shutter elements of said shutter device to perform a pre-exposure of said sensor element to capture a pre-image; and

performing an image analysis on said pre-image to mathematically determine an exposure depth of one or more regions in said pre-image;

wherein the obtaining steps are replaced by said pre-exposure.

11. The method of claim 7, wherein the capturing steps capture a partial image.

12. The method of claim 7, wherein the capturing steps capture complete images, and wherein portions of said complete images are combined to form a resultant image.

13. An image capturing method for a still image capturing device, comprising the steps of:

accepting object designations of one or more objects in an image to be captured;

initiating an image capture in an image sensor of said image capturing device, with said image sensor comprising a plurality of pixel elements;

capturing a first object image by exposing a first subset of said pixel elements; and

capturing a second object image by exposing a second subset of said pixel elements.

14. The method of claim 13, wherein the accepting step comprises designating a grouping of shutter elements substantially corresponding to an object.

15. The method of claim 13, wherein said object designations are entered by a user.

16. The method of claim 13, wherein said object designations are entered by a user, further comprising the steps of:

said user positioning an object indicia on an object; and

said user selecting said object by manipulating a select input device.

17. The method of claim 13, wherein said object designations are automatically generated by a processor of said image capturing device, said processor employing an image analysis procedure.

18. The method of claim 13, wherein said first object is at a first focus depth and said second object is at a second focus depth.

19. The method of claim 13, wherein the initiating step is performed at a press of a shutter button of said image capturing device.

20. The method of claim 13, wherein a lens apparatus of said image capturing device is moved before capture of said second object image.